We claim:

1. A crystalline gatifloxacin sesquihydrate Form H1, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 9.2, 10.5, 12.9, 18.4, 18.9, 19.9, 21.2, 21.7 and 24.0 degrees.
2. A crystalline gatifloxacin sesquihydrate Form H1 as defined in claim 1, further characterized by an x-ray powder diffraction pattern as in figure 1.
3. A process for preparation of gatifloxacin sesquihydrate Form H1 as defined in claim 1, which comprises crystallizing gatifloxacin sesquihydrate Form H1 from a solution comprising gatifloxacin, a chlorinated solvent and water; wherein the chlorinated solvent is selected from the group consisting of ethylene dichloride, chloroform, carbon tetrachloride and methylene dichloride.
4. A process according to claim 3, wherein the chlorinated solvent is ethylene dichloride.
5. A process according to claim 3, wherein gatifloxacin is a hydrate of gatifloxacin.
6. A crystalline gatifloxacin Form H2, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 5.9, 7.8, 13.7, 14.1, 15.9, 19.7 and 21.1 degrees.
7. A crystalline gatifloxacin Form H2 as defined in claim 6, further characterized by an x-ray powder diffraction pattern as in figure 2.
8. A process for preparation of gatifloxacin Form H2 as defined in claim 6, which comprises the steps of:

a) mixing gatifloxacin and an ester solvent;
b) heating to about $70^0$C to $80^0$C;
c) cooling rapidly to about $20^0$C to $25^0$C; and
d) filtering the solid separated;

wherein the ester solvent is selected from the group consisting of ethyl acetate, methyl acetate, isopropyl acetate, tert-butyl acetate, ethyl formate and methyl formate.
9. A process according to claim 8, wherein the gatifloxacin used is gatifloxacin sesquihydrate Form H1.
10. A process according to claim 8, wherein the ester solvent is ethyl acetate.

11. A process according to claim 8, wherein the contents are cooled to about $20^0$C to $25^0$C in 1 hour.

12. A process according to claim 3, wherein gatifloxacin used is gatifloxacin Form H2 of claim 6.

13. A crystalline gatifloxacin Form H3, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 7.8, 10.2, 12.9, 13.6, 14.1, 19.7, 20.5, 23.8, 25.9 and 28.6 degrees.

14. A crystalline gatifloxacin Form H3 as defined in claim 13, further characterized by an x-ray powder diffraction pattern as in figure 3.

15. A process for preparation of gatifloxacin Form H3 as defined in claim 13, which comprises the steps of:

a) mixing gatifloxacin and an ester solvent;

b) heating to about $70^0$C to $80^0$C;

c) cooling slowly to about $20^0$C to $25^0$C; and

d) filtering the solid separated;

wherein the ester solvent is selected from the group consisting of ethyl acetate, methyl acetate, isopropyl acetate, tert-butyl acetate, ethyl formate and methyl formate.

15. A process according to claim 15, wherein gatifloxacin used is hydrate of gatifloxacin.

16. A process according to claim 15, wherein gatifloxacin used is gatifloxacin Form H2.

17. A process according to claim 15, wherein the contents are cooled to about $20^0$C to $25^0$C in 4 to 6 hours.

18. A process according to claim 3, wherein gatifloxacin used is gatifloxacin Form H3 of claim 13.

19. A process according to claim 8, wherein gatifloxacin used is gatifloxacin Form H3 of claim 13.

20. A crystalline gatifloxacin sesquihydrate Form H4, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 6.3, 7.8, 9.2, 9.8, 10.6, 12.6, 12.9, 13.5, 14.4, 18.4, 19.8, 20.0, 20.9, 24.4, 25.4, 25.9 and 27.9 degrees.

21. A crystalline gatifloxacin sesquihydrate Form H4 as defined in claim 20, further characterized by an x-ray powder diffraction pattern as in figure 4.

22. A process for preparation of gatifloxacin sesquihydrate Form H4 as defined in claim 20, which comprises crystallizing gatifloxacin sesquihydrate Form H4 from the solution comprising gatifloxacin, a suitable quantity of 1,4-dioxane and water;
wherein the quantity of 1,4-dioxane is above 20 ml per gm of gatifloxacin.
23. A process according to claim 22, wherein the quantity of 1,4-dioxane is 20 to 40 ml per gm of gatifloxacin.
24. A process according to claim 22, wherein the gatifloxacin is a hydrate of gatifloxacin.
25. A crystalline gatifloxacin sesquihydrate Form H5, characterized by an x-ray powder diffraction pattern having peaks expressed as 2θ at about 8.2, 13.5, 13.9, 16.5, 17.0, 17.9, 19.9, 21.0, 23.3 and 24.8 degrees.
26. A crystalline gatifloxacin sesquihydrate Form H5 as defined in claim 25, further characterized by an x-ray powder diffraction pattern as in figure 5.
27. A process for preparation of gatifloxacin sesquihydrate Form H5 as defined in claim 25, which comprises crystallizing gatifloxacin sesquihydrate Form H5 from the solution comprising gatifloxacin, a suitable quantity of 1,4-dioxane and water;
wherein the quantity of 1,4-dioxane is equal to or below 20 ml per gm of gatifloxacin.
28. A process according to claim 27, wherein the quantity of 1,4-dioxane is 8 to 15 ml per gm of gatifloxacin.
29. A process according to claim 27, wherein the gatifloxacin is a hydrate of gatifloxacin.
30. A pharmaceutical composition comprising a crystalline form of gatifloxacin and a pharmaceutically acceptable carrier; wherein the crystalline form is selected from the group consisting of Form H1 of claim 1, Form H2 of claim 6, Form H3 of claim 13, Form H4 of claim 20 and Form H5 of claim 25.
31. A pharmaceutical composition of claim 30, wherein the crystalline form is gatifloxacin sesquihydrate Form H1of claim 1.
32. A pharmaceutical composition as defined in claim 30, wherein the crystalline form is gatifloxacin Form H2 of claim 6.
33. A pharmaceutical composition as defined in claim 30, wherein the crystalline form is gatifloxacin Form H3 of claim 13.

34. A pharmaceutical composition as defined in claim 30, wherein the crystalline form is gatifloxacin sesquihydrate Form H4 of claim 20.
35. A pharmaceutical composition as defined in claim 30, wherein the crystalline form is gatifloxacin sesquihydrate Form H5 of claim 25.